

ABSTRACT

In application of a foamed hot melt adhesive, a mixing ratio of foam can be selectably and quickly set, and also application of a foamed hot melt adhesive and that of a solid hot melt adhesive can be selectively performed by a single application device. A first gear pump and a second gear pump are driven by drive mechanisms independent from each other. The pressure of a liquid being sent by the pressure in the second compression process is detected, and this causes the speed of the first gear pump and the second gear pump to be sequence-controlled to automatically control the amount of mixing of gas. A gas suction opening is provided between the first gear pump and the second gear pump, and a mixer is provided between the gas suction opening and the second gear pump. The end of a return circuit is set on the downstream side of the first gear pump to prevent foam from returning to the tank side. A restriction valve is installed in a gun to produce a single bubble. The ratio of discharges between the first gear pump and the second gear pump is automatically controlled and set at a value greater than 1/1, enabling solid hot melt adhesive application and foamed hot melt application to be selectively performed.